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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,907

04/21/2006

Jianhui Li

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10/05/2009

INTEL/BSTZ

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EXAMINER

NAHAR, QAMRUN

ART UNIT

PAPER NUMBER

2191

MAIL DATE

DELIVERY MODE

10/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,907	Applicant(s) LI ET AL.	
	Examiner QAMRUN NAHAR	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/21/2006, 04/09/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-30 have been examined.

Information Disclosure Statement

The information disclosure statement filed on 04/21/2006 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

The information disclosure statement filed on 04/09/2008 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

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Specification

The disclosure is objected to because of the following informalities: Field of the Invention and Summary sections are missing in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang (US 2003/0088860).

Per Claim 1:

The Wang publication discloses:

- compiling source code into source binary code for a first computing platform (“...In accordance with the present invention, an optimizing compiler adds annotation information (compiler annotation) to an executable binary code file. ...” in par. 0009)
- and generating an annotation section associated with the source binary code, the annotation section comprising an annotation for a scope, the scope comprising at least one block of the

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source binary code having at least one attribute to aid a translator optimization (“...Compiler annotation provides information useful for binary translators such that a binary translator does not have to use a heuristic approach to translate binary code. Compiler annotation identifies such information as function boundaries, split functions, jump table information, function addresses, and code labels. The compiler annotation can be used by a binary translator when translating a source binary code to a target binary code. The target binary code optionally includes new compiler annotation. ...” in par. 0009).

Per Claim 2:

The Wang publication discloses:

- wherein if the scope comprises a plurality of blocks, the blocks have consecutive addresses with each other and have the at least one attribute in common (par. 0048).

Per Claim 3:

The Wang publication discloses:

- wherein the annotation section further comprises a region annotation for a region comprising one or more scope (par. 0047).

Per Claim 4:

The Wang publication discloses:

- wherein the annotation for the scope further comprises scope addresses, scope size and the at least one attribute, and the annotation for the region further comprises a region annotation pointer, region addresses and region size (par. 0048).

Per Claim 5:

The Wang publication discloses:

- wherein the attribute comprises information associated with register spilling and restoring instructions within a block (par. 0053).

Per Claim 6:

The Wang publication discloses:

- wherein the attribute comprises information associated with local variable assignment within a block (par. 0052).

Per Claim 7:

The Wang publication discloses:

- wherein the attribute comprises information associated with volatile variable access within a block (par. 0053).

Per Claim 8:

The Wang publication discloses:

- inputting source binary code for a first computing platform and an annotation section associated with the source binary code (“...In accordance with the present invention, an optimizing compiler adds annotation information (compiler annotation) to an executable binary code file. ...” in par. 0009)

- and translating the source binary code to a target binary code for a second computing platform by utilizing the annotation section, wherein, an annotation section comprises an annotation for a scope, the scope comprising at least one block of the source binary code having at least one attribute to aid a translator optimization (“...Compiler annotation provides information useful for binary translators such that a binary translator does not have to use a heuristic approach to translate binary code. Compiler annotation identifies such information as function boundaries, split functions, jump table information, function addresses, and code labels. The compiler annotation can be used by a binary translator when translating a source binary code to a target binary code. The target binary code optionally includes new compiler annotation. ...” in par. 0009).

Per Claim 9:

The Wang publication discloses:

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- wherein if the scope comprises a plurality of blocks, the blocks have consecutive addresses with each other and have the at least one attribute in common (par. 0048).

Per Claim 10:

The Wang publication discloses:

- wherein the annotation section further comprises an annotation for a region comprising one or more scope (par. 0047).

Per Claim 11:

The Wang publication discloses:

- wherein the annotation for the scope further comprises scope addresses, scope size and the at least one attribute, and the annotation for the region further comprises a region annotation pointer, region addresses and region size (par. 0048).

Per Claim 12:

The Wang publication discloses:

- wherein the attribute comprises information associated with register spilling and restoring instructions within a block (par. 0053).

Per Claim 13:

The Wang publication discloses:

- wherein the attribute comprises information associated with local variable assignment within a block (par. 0052).

Per Claim 14:

The Wang publication discloses:

- wherein the attribute comprises information associated with volatile variable access within a block (par. 0053).

Per Claim 15:

The Wang publication discloses:

- wherein translating the source binary code for the source platform further comprises:
generating target intermediate code based upon the source binary code; optimizing the target intermediate code by utilizing the annotation section; and generating the target binary code for the target platform based upon the optimized target intermediate code (par. 0064).

Per Claim 16:

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The Wang publication discloses:

- wherein optimizing the target intermediate code further comprises: generating an internal representation for the annotation section in response to determining that the internal representation has not been established; reading from the annotation section an attribute associated with a block of the target intermediate code based upon the internal representation; and optimizing the block based upon the read attribute (par. 0064).

Per Claim 17:

The Wang publication discloses:

- wherein the internal representation is an AVL tree, a node of the AVL tree comprising region addresses and region annotation pointer (par. 0062 and 0064).

Per Claims 18-24:

These are compiler versions of the claimed method discussed above (claims 1-7, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Wang.

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Per Claim 25-30:

These are translator versions of the claimed method discussed above (claims 8-11 and 16, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Wang.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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